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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,964	08/06/2001	Paul M. Neugebauer	1110-WO P99125US1A	1450

26562 7590 03/18/2003

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EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 03/18/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant No.

09/922,964

Applicant(s)

NEUGEBAUER ET AL.

Examiner

Steven D. Maki

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1733

- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 12 and 16 are indefinite because the preamble of the claim describes "method of compensating for residual aligning torque in a pneumatic tire" whereas the body of the claim describes inclining sipes instead of step(s) for compensating for residual aligning torque. One of ordinary skill in the art is not reasonably appraised of the scope of protection afforded by the language of "method of compensating for residual aligning torque in a pneumatic tire" in the preamble. It is unclear what limitation(s), if any, are imposed by the above noted preamble language on the steps (a) through (d).

In the claims, "degrees" should be used to describe the specific angles. For example, --degrees-- should be inserted after "angle of between 2 and 15" in claim 1.

- 3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1733

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5) Claims 1, 3, 5, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan '706 (JP 4-100706).

Japan '706 discloses a pneumatic radial tire having a tread and a belt. The tread comprises a center block row, intermediate block rows 22b, 22d and shoulder block rows 22a, 22e. Japan '706 teaches countering the self aligning torque produced by uppermost belt cords of the belt layer by inclining the blocks with respect to the tread normal T. In particular, Japan '706 teaches inclining the transverse grooves 20 in block rows 21a, 21b at a first angle of 5-30 degrees with respect to the tread normal and inclining the transverse grooves 20 in the other block rows 21d, 21e at a second angle with respect to the tread normal wherein the second angle is equal to the first angle but in an opposite direction of the first angle. Japan '706 states "In addition, sipes 28 are formed on the blocks 21 and these sipes 28 extend in a parallel manner to the lines L and M." (This information was obtained during a partial oral translation of page 36 left column lines 18-20 of Japan '706). The sipes therefore are inclined at a first angle of 5-30 degrees with respect to the normal T on one side of the tire and inclined in an opposite direction at angle of 5-30 degrees with respect to the normal T on the other side of the tire. As illustrated in figures 3 and 4, the sipes 28 have a depth generally about 50% of the block height.

Art Unit: 1733

The claimed method is anticipated by the Japan '706's method of forming a tire including inclining lateral grooves 20 and sipes 28 so as to counter the self aligning torque produced by uppermost belt cords of the belt layer.

6) **Claims 1-3 and 5-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '706 (JP 4-100706) and optionally further in view of Europe '104 (EP 810104).**

Japan '706, which is discussed above, is considered to anticipate claim 1. In any event: As to the claims, it would have been obvious to one of ordinary skill in the art to incline the sipes in the blocks of the tread of Japan '706 so as to compensate for residual aligning torque in a pneumatic tire since Japan '706 teaches inclining lateral grooves 20 and sipes 28 in blocks of a pneumatic tire so as to counter the self aligning torque produced by uppermost belt cords of the belt layer. With respect to claims 1, 12 and 16, Japan '706 teaches inclining the transverse grooves 20 and **sipes 28** in block rows 21a, 21b at a first angle with respect to the tread normal and inclining the transverse grooves 20 and **sipes 28** in the other block rows 21d, 21e at a second angle with respect to the tread normal wherein the second angle is equal to the first angle but in an opposite direction of the first angle.

As to inclination angle of the sipes, the claimed angle of 2 to 15 degrees (claims 1 and 12), generally 7 degrees (claims 2 and 13), acute angle (claim 16) would have been obvious in view of Japan '706's teaching to use an angle of 5-30 degrees to counter self aligning torque.

Art Unit: 1733

As to depth of the sipes, the claimed depth of 20-80% of tread block height (claims 3 and 12) would have been obvious in view since Japan '706 suggests using sipes 28 having a depth generally about 50% of the tread block height as illustrated in figures 3 and 4.

As to width, the claimed width of 0.015 to 0.06 inches / 0.38 to 1.52 mm (claims 6, 12 and 16), 0.03 inches / .76 mm (claim 7) would have been obvious in view of (a) Japan '706's teaching to use sipes 28 (sipe being a term of art denoting a narrow width groove) and optionally (b) Europe '104 which teaches that sipes have a width of zero to 2 mm such as 0.4 mm.

As to claims 5 and 17, note angle of transverse grooves 20.

As to claims 8 and 11, it would have been obvious to provide the sipes as zig-zag sipes (claim 8) or blind sipes (claim 11) since Europe '104 teaches that sipes which like those of Japan '706 are inclined with respect to the radial direction, may be zig-zag or blind.

As to claims 9, 10, 14 and 15, note the use of sipes in block rows 22a, 22b, 22d, 22e.

7) Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '706 (JP 4-100706) and optionally further in view of Europe '104 (EP 810104) as applied above and further in view of Hebellesau et al (US 4298046) or Japan '405 (JP 63-97405).

As to claims 4 and 17, it would have been obvious to provide the transverse grooves of Japan '706 so as to be perpendicular to the EP in view of Hebellesau et al's

Art Unit: 1733

suggestion to use such transverse grooves in a tread which contains sipes inclined with respect to the radial direction (figure 6) or Japan '405's teaching to use such transverse grooves in a tread wherein the transverse grooves like those in Japan '706 are inclined with respect to the radial direction.

8) Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '706 (JP 4-100706) and optionally further in view of Europe '104 (EP 810104) as applied above and further in view of Japan '404 (JP 57-104404).

As to claim 18, it would have been obvious to provide the transverse grooves of Japan '706 with the claimed V-shape since Japan '404 suggests using such transverse grooves (figure 4) in a tread having inclined blocks (figures 2, 3).

Remarks

8) The remaining references are of interest.

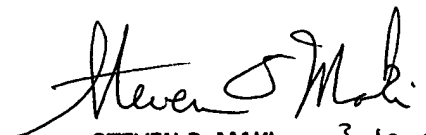
9) No claim is allowed.

10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
March 10, 2003


STEVEN D. MAKI 3-10-03
PRIMARY EXAMINER
-GROUP 1300
AC 1733